

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A file management method having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type information for discrimination between said first and second processing modes ~~in said recording medium as file management information associated with said file for file management~~, said method includes the steps of:

reading a file type information associated with a file to be processed from the recording medium;

converting said file type ~~from the file type~~ information indicative of said first processing mode to a file type information indicative of said second processing mode; and

writing the converted file type information ~~after the conversion~~ in the recording medium as ~~file~~ the file management information associated with said file to be

processed.

2. (currently amended) A file management method as set forth in claim 1, wherein said replacement processing is carried out on an ECC block basis, said block including N recording units termed as sectors (N: positive integer), and further comprising steps of:

judging whether or not ~~said data belonging to said file to be processed is stored in all the N sectors of said ECC block~~blocks that store data belonging to the file, are occupied; and

when judging that the data is not stored in the all N sectors of the ECC block~~blocks~~, registering in said file management information ~~as a stuffing a remaining sector termed as a remaining sector within the ECC block having the data of the file to be processed stored therein, in which the data of the file to be processed being is not stored in said remaining sector~~as a stuffing.

3. (currently amended) A file management method as set forth in claim 2, further comprising steps of:

judging whether or not data, termed as other data, belonging to a file, termed as another file, other than said file to be processed is stored in said remaining sector;

when judging that the other data is stored in the remaining sector, moving said other data to another ECC block ~~other than said ECC block~~; and

reflecting a result of said movement in file management information ~~for~~

~~management of said other file.~~

4. (currently amended) A file management method as set forth in claim 2, further comprising steps of:

judging whether or not data belonging to a file other than said file to be processed is stored in said remaining sector;

when judging that the data is stored in said remaining sector, moving the data belonging to said file to be processed ~~on a basis of~~ to an ECC block different from said ECC block; and

reflecting a result of said movement in the file management information ~~for management of said file to be processed.~~

5. (original) A file management method as set forth in claim 3, wherein said step of reflecting the result of said movement includes:

deleting first data allocation information indicative of a data storage location on the recording medium prior to said movement in said file management information; and

registering second data allocation information indicative of a data storage location on the recording medium after said movement in said file management information.

6. (currently amended) A file management method as set forth in claim 1,

further comprising a step of setting a flag for inhibiting relocation of the file to be processed ~~is set in~~ said management information.

7. (currently amended) A file management method ~~having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to another write area is carried out to write the data in the another area, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to the another write area is not carried out to write the data, and according to claim 1 wherein said replacement processing is carried out on a basis of an ECC block including N recording units (N: positive integer) termed as sectors, said method comprising the steps of:~~

~~reading data stored at a recording location after another write area by said replacement processing; and~~

~~writing said data in the an original recording location prior to area where the data would have been written without said replacement processing wherein said replacement processing and the reading step and writing step are carried out on a basis of an ECC block including N recording units (N: positive integer) termed as sectors.~~

8. (currently amended) A file management method having a first processing mode wherein upon occurrence of a write error for a file data to be written on a

recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, the replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type information for discrimination between said first and second processing modes in said recording medium as file management information associated with said file ~~for file management~~, said method comprising the steps of:

judging without using said file type information whether or not said file to be processed is read in said second processing mode;

when judging by said judgement step that said file to be processed is read, reading the data in said second processing mode; and

when judging by said judgement step that said file to be processed is not read, reading the data in said first processing mode.

9. (currently amended) A file management apparatus having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type

information for discrimination between said first and second processing modes in said ~~recording medium~~ as file management information associated with said file ~~for file management~~, said apparatus comprising:

means for reading a file type information associated with a file to be processed from the recording medium;

means for converting said file type from the file type indicative of said first processing mode to a file type indicative of said second processing mode; and

means for writing the file type after the conversion in the recording medium as file management information associated with said file to be processed.

10. (currently amended) A file management apparatus as set forth in claim 9, wherein said replacement processing is carried out on an ECC block basis, said block as a recording unit including N (N: positive integer) sectors, and further comprising:

means for judging whether or not ~~said data belonging to said file to be processed is stored in~~ all the N sectors of said ECC block blocks that store data belonging to the file, are occupied; and

when said judging means judges that the data is not stored in the all N sectors of the ECC blockblocks, means for registering one ~~(referred to as the remaining sector)~~ of the remaining sectors in the ECC block ~~having the data of the file to be processed stored therein wherein which~~ the data of the file to be processed is not stored as a stuffing in said file management information.

11. (currently amended) A file management apparatus as set forth in claim 10, further comprising:

means for judging whether or not data (referred to as other data) belonging to a file other than said file to be processed is stored in said remaining sector;

when said judging means judges that the other data is stored in the remaining sector, means for moving said other data to another ECC block ~~other than said ECC block~~; and

means for reflecting a result of said movement in file management information ~~for management of said other file~~.

12. (currently amended) A file management apparatus as set forth in claim 10, further comprising:

means for judging whether or not data belonging to a file other than said file to be processed is stored in said remaining sector;

when said judging means judges that the data is stored in said remaining sector, means for moving the data belonging to said file to be processed ~~on a basis of~~ to an ECC block different from said ECC block; and

means for reflecting a result of said movement in the file management information ~~for management of said file to be processed~~.

13. (original) A file management apparatus as set forth in claim 11, wherein

said means for reflecting the result of said movement includes:

means for deleting first data allocation information indicative of a data storage location on the recording medium prior to said movement in said file management information; and

means for registering second data allocation information indicative of a data storage location on the recording medium after said movement in said file management information.

14. (currently amended) A file management apparatus as set forth in claim 9, further comprising means for setting a flag for inhibiting relocation of the file to be processed ~~is set in~~ said management information.

15. (currently amended) A file management apparatus ~~having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to another write area is carried out to write the data in the another area, and has a second processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, the replacement processing to another write area is not carried out to write the data, and according to claim 9 wherein said replacement processing is carried out on a basis of an ECC block including N recording units (N: positive integer) termed as sectors, said apparatus comprising:~~

means for reading data stored at a recording location after another write area

by said replacement processing; and

means for writing said data in ~~the recording location prior to an original~~
recording area where the data would have been written without said replacement
processing, wherein said replacement processing and the reading and the writing
are carried out on a basis of an ECC block including N recording units (N: positive
integer) termed as sectors.

16. (currently amended) A file management apparatus having a first
processing mode wherein upon occurrence of a write error for a file data to be
written on a recording medium, replacement processing to write the data in another
write area is carried out ~~to write the data in the another area~~, and having a second
processing mode wherein upon occurrence of a write error for a file data to be
written on the recording medium, replacement processing to write the data in another
write area is not carried out ~~to write the data~~, said recording medium storing file type
information for discrimination between said first and second processing modes in
said recording medium as file management information associated with said file ~~for~~
~~file management~~, said apparatus comprising:

means for judging without using said file type information whether or not said
file to be processed is read in said second processing mode;

when said judging means judges that said file to be processed is read, means
for reading the data in said second processing mode; and

when said judging means judges that said file to be processed is not read,

means for reading the data in said first processing mode.

17. (currently amended) A program having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type information for distinction between said first and second processing modes ~~in said recording medium as~~ file management information associated with said file ~~for file management~~, said program for causing a computer to execute the steps:

reading a file type information associated with a file to be processed from the recording medium;

converting said file type ~~from the file type information~~ indicative of said first processing mode to a file type information indicative of said second processing mode; and

writing the converted file type information ~~after the conversion~~ in the recording medium as the file management information associated with said file to be processed.

18. (currently amended) A program as set forth in claim 17, wherein said

replacement processing is carried out on an ECC block basis, said block as a recording unit including N (N: positive integer) sectors, said program for causing a computer to execute the steps of:

judging whether or not ~~said data belonging to said file to be processed is stored in all the N sectors of said ECC block~~blocks that store data belonging to the file, are occupied; and

when said judging step judges that the data is not stored in the all N sectors of the ECC block~~blocks~~, registering one (~~referred to as the remaining sector~~) of the remaining sectors in the ECC block~~having the data of the file to be processed stored therein wherein~~which the data of the file to be processed is not stored as a stuffing in said file management information.

19. (currently amended) A program as set forth in claim 18, further for causing a computer to execute the steps of:

judging whether or not data (referred to as other data) belonging to a file other than said file to be processed is stored in said remaining sector;

when said judging step judges that the other data is stored in the remaining sector, moving said other data to another ECC block~~other than said ECC block~~; and

reflecting a result of said movement in file management information~~for management of said other file~~.

20. (original) A program as set forth in claim 18 for causing a computer to

execute further steps of:

judging whether or not data belonging to a file other than said file to be processed is stored in said remaining sector;

when said judging step judges that the data is stored in said remaining sector, moving the data belong to said file to be processed ~~on a basis of~~ to an ECC block different from said ECC block; and

reflecting a result of said movement in the file management information ~~for management of said file to be processed.~~

21. (original) A program as set forth in claim 19 for causing a computer to execute said step of reflecting the result of said movement further including:

deleting first data allocation information indicative of a data storage location on the recording medium prior to said movement in said file management information; and

registering second data allocation information indicative of a data storage location on the recording medium after said movement in said file management information.

22. (currently amended) A program as set forth in claim 17, for causing a computer to execute further a step of setting a flag for inhibiting relocation of the file to be processed ~~is set in~~ said management information.

23. (currently amended) A program ~~which has a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to another write area is carried out to write the data in the another area, and has a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to another write area is not carried out to write the data, and according to claim 17 wherein said replacement processing is carried out on a basis of an ECC block including N recording units (N: positive integer) termed as sectors, said~~ program for causing a computer to execute steps of:

reading data stored at a ~~recording location after another write area by said~~ replacement processing; and

writing said data in the ~~an original recording location prior to area where the data would have been written without said replacement processing wherein said replacement processing and the reading step and the writing step are carried out on a basis of an ECC block including N recording units (N: positive integer) termed as sectors.~~

24. (currently amended) A program having a first processing mode wherein, when data in the form of a file is written on a recording medium and a write error occurs, replacement processing to write the data in another write area is carried out ~~to write the data in the other area,~~ and having a second processing mode wherein, when the write error occurs, the replacement processing to write the data in the other

write area is not carried out ~~to write the data~~, for storing a file type for distinction between said first and second processing modes in said recording medium as file management information associated with said file ~~for file management~~, said program for causing a computer to execute the steps of:

judging without using said file type whether or not said file to be processed is read in said second processing mode;

when said judging step judges that said file to be processed is read, reading the data in said second processing mode; and

when said judging step judges that said file to be processed is not read, reading the data in said first processing mode.

25. (currently amended) A file management method having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type information for discrimination between said first and second processing modes in said recording medium as file management information associated with said file ~~for file management~~, said method comprising the step of:

regarding the file type of a file to be processed as said second processing

mode regardless of said file type and reading the data in said second processing mode.

26. (currently amended) A file management apparatus having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium, replacement processing to write the data in another write area is not carried out ~~to write the data~~, said recording medium storing file type information for discrimination between said first and second processing modes in said recording medium as file management information associated with said file ~~for file management~~, said apparatus comprising:

means for regarding the file type of a file to be processed as said second processing mode regardless of said file type and reading the data in said second processing mode.

27. (currently amended) A program having a first processing mode wherein upon occurrence of a write error for a file data to be written on a recording medium, replacement processing to write the data in another write area is carried out ~~to write the data in the another area~~, and having a second processing mode wherein upon occurrence of a write error for a file data to be written on the recording medium,

replacement processing to write the data in another write area is not carried out to ~~write the data~~, said recording medium storing file type information for discrimination between said first and second processing modes in said recording medium as file management information associated with said file ~~for file management~~, said program for causing a computer to execute the step of:

regarding the file type of a file to be processed as said second processing mode regardless of said file type and reading the data in said second processing mode.

28. (new) A file management method for managing data stored in a recording medium in a file form, the method comprising the steps of:

recording information on a file type of the data in the recording medium, the file type in the data being both of a first file type associated with a first processing mode in which a data reading operation stops in response to an error in the data and a second file type associated with a second processing mode in which a data reading operation is kept continued regardless of an error in the data;

reading the information on the file type of the data to be processed from the recording medium;

converting the first file type of the data read from the recording medium to the second file type in response to existence of a part of the first file type;

writing the converted second file type into the recording medium; and

reading out the data, a file type of which is the second file type, from the recording medium.

29. (new) The file management method of claim 28 further comprising the steps of:

replacing a part of the data in the first file type in the recording medium on an ECC blocks basis in case that the reading operation stops, the block including N-recording units termed as sectors (N: positive integer);

judging whether or not all the N sectors of the ECC blocks are occupied; and
registering, in the information on the file type recorded in the recording medium, a remaining sector as a stuffing when the all the N sectors of the ECC blocks are occupied.